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EXAMINER	
BAIG, ADNAN	

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2461	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/589,240	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	ADNAN BAIG	2461	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 7-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4 and 7-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 5-9, 12-13, and 16-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 7-9, 12-13, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Wang et al. US (2006/0244624)

Regarding Claim 1, Maehsima discloses a terminal (**see Fig. 1, terminals 100-107**) used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control frame (**see, Fig. 3**) issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the terminal comprising:

a detection portion configured to detect the control frame, (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically , See Para [0087] lines 4-7 & Fig. 15 step S21**).

which is periodically transmitted from the control station (**see Para [0005] & Para [0078] lines 6-12**),

the control frame containing control information indicating a time period in which access to the communication medium is permitted, (**see Para [0005] & [0045-0046]**)

an issuance portion configured to periodically issue a substitute frame created by using the control information contained in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses (**see Fig. 16, step S40**) after the control frame has been most recently detected by the detection portion, (**See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by**

time (*i.e., predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (*i.e., substitute fame issued periodically*) is started to carry out the management of information transmission (*i.e., control fame most recently detected*) in the network at the station).

Maeshima dos not disclose a control station mode portion configured to cause the terminal to operate as the control station, unless the detection portion newly detects a control frame issued by the control station before a predetermined second time period elapses after the substitute frame has been started to be issued, wherein the issuance portion stops issuing the substitute frame when the detection portion newly detects the control frame before the predetermined second time period elapses after the substitute frame has been started to be issued. However the limitation is known in the art of communications by evidence of Wang et al. US (2006/0244624).

Wang discloses “a back up master is able to take control of a network once a master malfunction is automatically detected”, **see Para [0018]**. “Master and slaves exchange status information at pre-determined intervals (*i.e., periodically)* to make sure the master is working properly. The master sends out beacon packets that contain status

information at these certain intervals. The slaves receive (*i.e., detect*) the beacon packets and determine the state of the master", (**See Para [0025]**).

Referring to Fig. 1, Wang illustrates at step 13, a slave waits a certain delay time t2 (*i.e., predetermined second time period*) before taking any action in case the master becomes operational again. If the master does become operational within the time delay t2, it would be obvious to one of ordinary skill in the art that a beacon packet (*i.e., control frame*) from the master will be detected by a slave, **see Para [0026].** "Once the delay is timed out (*i.e., no control frame detected within second predetermined time period*), at step 15 the first slave to discover the master failure, will convert itself (*i.e., configured to operate as the control station*) to the new master", **see Para [0026] lines 3-5.**)

The slave converts itself to a new master (**see Fig. 1 step 15**) status using a master code (*i.e., control station mode portion*) stored in memory, (**see Para [0027]**)

When a slave discovers that the master is not working it does not take on the role of a master for a certain delay time t2 to determine if the master is operational as discussed above, (**see Para [0024-0028]**)

Wang teaches in a master-slave networked system, due to the important role of the master, it is critical to make sure that there is always a master working properly at all times, (**see Para [0016]**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to have an issuance portion stop issuing a substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Wang who discloses, a control station mode portion configured to cause the terminal to operate as the control station, unless a beacon packet is detected from a master, indicating the master has become operational again before a certain delay time “t2”, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, an issuance portion configured to periodically issue a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because the teaching lies in Wang that due to the important role of the master, it is critical to make sure that there is always a master working properly in a master-slave networked system.

Regarding Claim 7, the combination of Maeshima in view of Wang discloses the terminal according to claim 1, wherein the control station mode portion (**see Fig. 2 Items 21A, 21B**) collects information required for the terminal to operate as a control station from another terminal, (**Maeshima, See Para [0040]**).

Regarding Claim 8, the combination of Maeshima in view of Wang disclose the terminal according to claim 6, wherein the mode issuance portion issues a reset signal to collect information required for the terminal to operate as a control station from another terminal, (**Maeshima, see Para [0007]**).

Regarding Claim 9, the combination of Maeshima in view of Wang disclose the terminal according to claim 1, further comprising: a transmission portion (**See Fig. 2 Items 22A,22B**) configured to access the communication medium (**Para [0005] & [0045]**), in accordance with the control information contained in a previously received detected control frame (**See Fig 2 Items 21A,21B**), when the control frame is not newly detected before the predetermined first time period elapse after the control frame has been most recently detected by the detection portion, (**Referring to Fig. 2, Items 22A, 22B manage transmission for medium access using the management information stored in Items 21A,21B, when an inconvenience (i.e., control frame not received) in the master control station occurs, see Para [0039-0044] & [0080-0082])**

Regarding Claim 12, the combination of Maeshima in view of Wang, disclose the terminal according to claim 1, wherein a candidate terminal which transmits the substitute flame is previously designated by the control station (**Maeshima, Para [0011]**), and predetermined first time period used when the terminal is designated as the candidate terminal, is shorter than the predetermined first time period used when the terminal is not designated as the candidate terminal, (**i.e., each designated candidate terminal (i.e., priority order master control station) contain different stand-by times**, **See Para [0078] & [0012-0013]**).

Regarding Claim 13, the combination of Maeshima in view of Wang, disclose the terminal according to claim 12, wherein the control station gives the candidate terminal a priority (**Maeshima, see Para [0047]**), and a length of the predetermined first time period is determined in accordance with the priority, (**See Para [0012] i.e., each priority order receives different standby times (i.e., length)**).

Regarding Claim 16, the combination of Maeshima in view of Wang disclose the terminal according to claim 1, wherein an identifier for the control station is contained in the control frame, **(See Fig. 3 "Control Information Transmission Region" & Para [0045])**

Regarding Claim 17 the combination of Maeshima in view of Wang disclose the terminal according to claim 16, wherein the terminal operates as the control station when an identifier for the terminal is contained in the substitute frame, (**See Fig. 3 "Control Information Transmission Region" & Para [0045-0046]**).

Regarding Claim 18, Maeshima discloses a communication method executed by a terminal (**see Fig. 1, terminals 100-107**), used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control flame (**see, Fig. 3**) issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the communication method comprising:

detecting the control frame (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically , See Para [0087] lines 4-7 & Fig. 15 step S21**).

which is periodically transmitted from the control station, (**see Para [0005] & Para [0078] lines 6-12)**,

the control frame containing control information indicating a time period in which access to the communication medium is permitted, (**see Para [0005] & [0045-0046]**)

periodically issuing a substitute frame created by using the control information contained in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses (**see Fig. 16, step S40**) after the control frame has been most recently detected by the detection portion; (**See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (*i.e., predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (*i.e., substitute fame issued periodically*) is started to carry out the management of information transmission (*i.e., control fame most recently detected*) in the network at the station**).

Maeshima does not disclose causing the terminal to operate as the control station, unless the control frame issued by the control station is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued wherein the periodic issuing of the substitute frame stops when the control frame is newly detected before the predetermined second time period elapses after the

substitute frame has been started to be issued. However the limitation is known in the art of communications by evidence of Wang et al. US (2006/0244624).

Wang discloses "a back up master is able to take control of a network once a master malfunction is automatically detected", **see Para [0018]**. "Master and slaves exchange status information at pre-determined intervals (*i.e., periodically)* to make sure the master is working properly. The master sends out beacon packets that contain status information at these certain intervals. The slaves receive (*i.e., detect*) the beacon packets and determine the state of the master", (**See Para [0025]**).

Referring to Fig. 1, Wang illustrates at step 13, a slave waits a certain delay time t2 (*i.e., predetermined second time period*) before taking any action in case the master becomes operational again. If the master does become operational within the time delay t2, it would be obvious to one of ordinary skill in the art that a beacon packet (*i.e., control frame*) from the master will be detected by a slave, **see Para [0026]. "**Once the delay is timed out (*i.e., no control frame detected within second predetermined time period*), at step 15 the first slave to discover the master failure, will convert itself (*i.e., configured to operate as the control station*) to the new master", **see Para [0026] lines 3-5.**)

The slave converts itself to a new master (**see Fig. 1 step 15**) status using a master code (*i.e., control station mode portion*) stored in memory, (**see Para [0027]**)

When a slave discovers that the master is not working it does not take on the role of a master for a certain delay time t2 to determine if the master is operational as discussed above, (**see Para [0024-0028]**)

Wang teaches in a master-slave networked system, due to the important role of the master, it is critical to make sure that there is always a master working properly at all times, (**see Para [0016]**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to stop issuing a periodic substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Wang who discloses, causing the terminal to operate as the control station, unless a beacon packet is detected from a master, indicating the master has become operational again before a certain delay time “t2”, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is

permitted, periodically issuing a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because the teaching lies in Wang that due to the important role of the master, it is critical to make sure that there is always a master working properly in a master-slave networked system.

Regarding Claim 19, Maeshima discloses an integrated circuit (**see Para [0004]**) for use in a terminal, used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control frame (**see, Fig. 3**) issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the integrated circuit comprising:

a detection portion configured to detect, from frames (**see Fig. 3**) received by a transmission and reception unit (**see Fig. 2, 26A 26B & Para [0039-0044]**) of the terminal, the control frame **(Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the**

master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically, See Para [0087] lines 4-7 & Fig. 15 step S21).

which is periodically transmitted from the control station (**see Para [0005] & Para [0078] lines 6-12)**, the control frame containing control information indicating a time period in which access to the communication medium is permitted (**see Para [0005] & [0045-0046]**)

an issuance portion configured to periodically issue a substitute frame created by using the control information contained in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses (**see Fig. 16, step S40**) after the control frame has been most recently detected by the detection portion and transmitting the substitute frame to the transmission and reception unit (**See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (*i.e., predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (*i.e., substitute fame issued periodically*) is started to carry out the**

management of information transmission (*i.e., control fame most recently detected*) in the network at the station).

Maeshima does not disclose a control station mode portion configured to cause the terminal to operate as the control station, unless the detection portion newly detects a control frame issued by the control station before a predetermined second time period elapses after the substitute frame has been started to be issued, wherein the issuance portion stops issuing the substitute frame when the detection portion newly detects the control frame before the predetermined second time period elapses after the substitute frame has been started to be issued, however the limitation is known in the art of communications by evidence of Wang et al. US (2006/0244624).

Wang discloses "a back up master is able to take control of a network once a master malfunction is automatically detected", **see Para [0018]**. "Master and slaves exchange status information at pre-determined intervals (*i.e., periodically)* to make sure the master is working properly. The master sends out beacon packets that contain status information at these certain intervals. The slaves receive (*i.e., detect*) the beacon packets and determine the state of the master", (**See Para [0025]**).

Referring to Fig. 1, Wang illustrates at step 13, a slave waits a certain delay time t2 (*i.e., predetermined second time period*) before taking any action in case the master becomes operational again. If the master does become operational within the time delay t2, it would be obvious to one of ordinary skill in the art that a beacon packet (*i.e., control frame*) from the master will be detected by a slave, **see Para [0026].** "Once the delay is timed out (*i.e., no control frame detected within second predetermined time period*), at step 15 the first slave to discover the master failure, will convert itself (*i.e., configured to operate as the control station*) to the new master", **see Para [0026] lines 3-5.**)

The slave converts itself to a new master (**see Fig. 1 step 15**) status using a master code (*i.e., control station mode portion*) stored in memory, (**see Para [0027]**)

When a slave discovers that the master is not working it does not take on the role of a master for a certain delay time t2 to determine if the master is operational as discussed above, (**see Para [0024-0028]**)

Wang teaches in a master-slave networked system, due to the important role of the master, it is critical to make sure that there is always a master working properly at all times, (**see Para [0016]**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to have an issuance portion stop issuing a substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Wang who discloses, a control station mode portion configured to cause the terminal to operate as the control station, unless a beacon packet is detected from a master, indicating the master has become operational again before a certain delay time “t2”, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, an issuance portion configured to periodically issue a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because the teaching lies in Wang that due to the important role of the master, it is critical to make sure that there is always a master working properly in a master-slave networked system.

Regarding Claim 20, Maeshima discloses a control method executed by an integrated circuit (**see Para [0004]**) for use in a terminal used in a communication system

comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control frame (**see Fig. 3)** issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the control method comprising:

detecting, from the frames received by a transmission and reception unit (**see Fig. 2, 26A 26B & Para [0039-0044])** of the terminal, the control frame, **(Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically, See Para [0087] lines 4-7 & Fig. 15 step S21**).

which is periodically transmitted from the control station (**see Para [0005] & Para [0078] lines 6-12)**, the control frame containing control information indicating a time period in which access to the communication medium is permitted, (**see Para [0005] & [0045-0046]**)

periodically issuing a substitute frame, created by using the control information contained in the control frame having been most recently detected and including the

same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses (**see Fig. 16, step S40**) after the control frame has been most recently detected by the detection portion over and transmitting the substitute frame to the transmission and reception unit (**See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (*i.e., predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (*i.e., substitute fame issued periodically*) is started to carry out the management of information transmission (*i.e., control fame most recently detected*) in the network at the station**).

Maeshima does not discloses causing the terminal to operate as the control station, unless the control frame issued by the control station is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, wherein the periodic issuing of the substitute frame stops when the control flame is newly detected before the predetermined second time period elapses after the substitute frame has been started to be issued, however the limitation is known in the art of communications by evidence of Wang et al. US (2006/0244624).

Wang discloses "a back up master is able to take control of a network once a master malfunction is automatically detected", **see Para [0018]**. "Master and slaves exchange status information at pre-determined intervals (*i.e., periodically)* to make sure the master is working properly. The master sends out beacon packets that contain status information at these certain intervals. The slaves receive (*i.e., detect*) the beacon packets and determine the state of the master", (**See Para [0025]**).

Referring to Fig. 1, Wang illustrates at step 13, a slave waits a certain delay time t2 (*i.e., predetermined second time period*) before taking any action in case the master becomes operational again. If the master does become operational within the time delay t2, it would be obvious to one of ordinary skill in the art that a beacon packet (*i.e., control frame*) from the master will be detected by a slave, **see Para [0026]. "**Once the delay is timed out (*i.e., no control frame detected within second predetermined time period*), at step 15 the first slave to discover the master failure, will convert itself (*i.e., configured to operate as the control station*) to the new master", **see Para [0026] lines 3-5.**)

The slave converts itself to a new master (**see Fig. 1 step 15**) status using a master code (*i.e., control station mode portion*) stored in memory, (**see Para [0027]**)

When a slave discovers that the master is not working it does not take on the role of a master for a certain delay time t2 to determine if the master is operational as discussed above, (**see Para [0024-0028]**)

Wang teaches in a master-slave networked system, due to the important role of the master, it is critical to make sure that there is always a master working properly at all times, (**see Para [0016]**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to stop issuing a periodic substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Wang who discloses, causing the terminal to operate as the control station, unless a beacon packet is detected from a master, indicating the master has become operational again before a certain delay time “t2”, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, periodically issuing a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most

recently detected, because the teaching lies in Wang that due to the important role of the master, it is critical to make sure that there is always a master working properly in a master-slave networked system.

Regarding Claim 21, the combination of Maeshima in view of Wang, disclose the terminal according to claim 1, further comprising a control frame memory portion **(see Fig. 2 Items 21A, 21B)** configured to store the control information contained in the control frame, **(Maeshima, See Para [0040])**

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Wang et al. US (2006/0244624) as applied to claim 1 above, and further in view of Kita et al. (US 2003/0054821).

Regarding Claim 3, the combination of Maeshima in view of Wang disclose the terminal according to claim 1, wherein when the detection portion detects, before the predetermined second time period elapses (**Wang, see Para [0026]**) after the substitute frame has been started to be issued, (**Maeshima, see Para [0047-0048]**)

a request frame containing information representing a request for allocating a transmission band in which another terminal performs transmission to the control

station, (**Maeshima, see Para [0074]**) the issuance portion issues a response frame containing information (**Maeshima, See Para [0047-0048]**)

However the combination of Maeshima in view of Wang, do not disclose the issuance portion issuing a response frame indicating that the request is rejected. However the limitation is known in the art of communications by evidence of Kita et al. (US 2003/0054821).

Kita teaches a master device has an option of rejecting or accepting a request from a slave device (**see Fig. 1 & Para [0021-0028]**).

(Kita teaches there is a need to provide a technology capable of simply configuring a wireless communication network that ensures security by having a Manager (i.e., master) implement a search module for a processing device for a predetermined period, **see Para [0037-0039]**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to reject a request frame from another device as taught by Kita, within the system of Maeshima, because the teaching lies in Kita to ensure network security.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Wang et al. US (2006/0244624) as applied to claim 1 above, and further in view of Spartz et al. (US 2004/0002338).

Regarding Claim 4, the combination of Maeshima in view of Wang disclose the terminal according to claim 1, wherein when the detection portion detects, before the predetermined second time period elapses (**Wang, See Para [0026]**) after the substitute frame has been started to be issued, (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically, See Para [0080-0082], [0087] lines 4-7 & Fig. 15 step S21**)

a request frame containing information representing a request for allocating a transmission band in which another terminal performs transmission to the control station, (**Maehsima, see Para [0074]**)

However Maeshima does not disclose the issuance portion issuing no response to the request from another slave terminal. However the limitation is known in the art of communications by evidence of Spartz et al. (US 2004/0002338).

(Spartz teaches a base station (**i.e., Master control station**) may ignore (**i.e., no response**) the request of a mobile station (**i.e., slave station**) for establishing a communication link, **see Fig. 5 & Para [0003])**

(Spartz teaches a need to provide communication services from a base station operating in accordance with an older release of the standard to an updated mobile station, **see Para [0002]**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to issue no response to a request as taught by Spartz, within the teachings of Maeshima in view of Wang, because the teaching lies in Spartz to provide efficient communication services between a device and base station.

6. Claims 10-11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Wang et al. US

(2006/0244624) as applied to claim 1 above, and further in view of Isumi (USP 5,815,816)..

Regarding Claim 10, the combination of Maeshima in view of Wang, disclose the terminal according to claim 1, wherein, when the control frame is not newly detected before the predetermined first time period elapses after the control frame has been most recently detected by the detection portion, the issuance portion transmits the substitute frame (**see Fig. 16, step S40 & Para [0080-0082]**)

(Maeshima teaches a problem occurs when only one slave station is prepared to become the master control station and the original master control station that shares the same power supply with the slave station both experience an inconvenience simultaneously, **See Para [0008]**).

The combination of Maeshima in view of Wang do not disclose the issuance portion performing a competition with another terminal, and acquiring access to the communication medium as a result of the competition, however the limitation is known in the art of communications by evidence of Isumi (USP 5,815,816).

Isumi discloses performing a competition with another terminal and acquire access to the communication medium as a result, (**See Col. 14 lines 30-55).**

Isumi teaches there is a need for digital mobile telecommunications systems which have high extensibility to be utilized, (**See Col. 1 lines 35-52)**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform a competition with another terminal and acquire access to the communication medium as a result of the competition as taught by Isumi, within the teachnings of Maeshima in view of Wang, because the teaching lies in Isumi to utilize telecommunication systems which have high extensibility.

Regarding Claim 11, the combination of Maeshima in view of Wang, and further in view of Isumi, disclose the terminal according to claim 10, wherein a candidate terminal which transmits the substitute frame is previously designated and given a priority by the control station, (**Maeshima, Para [0011]**)

the competition is performed such that a terminal having a higher priority has a higher probability of acquiring the access right to access the communication medium, (**Isumi, Col. 14 lines 41-47**).

Regarding Claim 14, the combination of Maeshima in view of Wang, and further in view of Isumi, disclose the terminal according to claim 11, wherein the control station designates the candidate terminal based on information about a communication state of a terminal in a network, (**Maeshima, see Para [0049], communication state i.e., "electric power, error rate or the like"**).

Regarding Claim 15, the combination of Maeshima in view of Wang, and further in view of Isumi, disclose the terminal according to claim 11, wherein the designation of the terminal as the candidate terminal is released, when the control station designates another terminal as the candidate terminal, (**Maeshima, See Para [0059] i.e., terminal 105 is selected as candidate terminal, while terminal 103 is released in priority order**)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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